

Patent Claims

1. Deadening material, especially for production of  
5 deadening pads for automobiles, including at least one  
binding material and  
at least one filler material,  
whereby the filler material comprises natural straw  
and the straw is at least partly disintegrated.  
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2. Deadening material according to claim 1  
wherein said straw's natural fibre binding by the  
disintegration process of the straw is at least  
partly neutralized.  
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3. Deadening material according to claim 1,  
wherein said straw's natural structure in the original  
form of straw stalks bound by straw fibres with the  
disintegration of the straw is at least partly  
20 annulled.
4. Deadening material according to claim 1,  
wherein said disintegrated straw is formed by straw  
fibres which are dissolved from the natural stalk  
25 structure.
5. Deadening material according to claim 1 ,  
characterized in that the natural structure of the  
original straw in form of straw stalks build by straw  
30 fibres is at least partly neutralized by loosening the

natural pentosan-, lignin- and / or cellulose- binding of the straw fibres within the straw stalks.

5 6. Deadening material according to claim 1, wherein said filler material is boiled.

7. Deadening material according to claim 1, characterized in that the binding agent contains bitumen.

10 8. Deadening material according to claim 1, characterized in that the straw before its disintegration is reduced to particles, in a way that the straw fibres compared to their natural length have a shortened length.

15 9. Deadening material based according to claim 8, characterized in that the straw fibres have a length of shorter or equal 100 mm.

20 10. Deadening material according to claim 1, characterized in that the filler material is impregnated.

11. Deadening according to claim 1, characterized in that the filler material is treated / impregnated to make it more combustible resistant.

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12. Deadening material according to claim 10, characterized in that the means to make it more combustible resistant contains Triethyl phosphate.

13. Deadening material according to claim 1,  
characterized in that the filler material is dry and / or  
pulpy and temperized up to 100 ° C.

5 14. Deadening material according to claim 1,  
characterized in that the filler material can be  
compressed.

10 15. Deadening material according to claim 1,  
characterized by a density of the straw of less or equal  
to 2000 kg / cbm.

15 16. Deadening material according to claim 1,  
characterized in that the straw has a raw fibre share of  
15 to 75 %, a lignin share of 10 to 40 %, a  
pentosan share of 0 to 40 % and a  
cellulose share of 0 to 60 %.

20 17. Deadening material according to claim 1,  
characterized, by heat fusibility.

18. Deadening material according to claim 1,  
characterized by a portion of magnetizable material.

25 19. Deadening material according to claim 1, including at  
least one binding agent and at least one filler material,  
whereby the filler material contains straw and that the  
straw is partly chaffed or shredded.

30 20. Vehicle deadening pad, manufacturable from the  
deadening material according to claim 1.

21. Process for producing a deadening material for vehicles, especially according to claim 1, whereby a filler material which includes straw and a binding agent are provided and the structure of the straw, by disintegration, is neutralized, so that the fibre structure is freed, as are the lignin, pentosan and cellulose, and that the straw pulp, in this way disintegrated, is mixed with the binding agent.

22. Process according to claim 21, characterized in that the straw is cooked at least till the fibre structure of the straw is at least partly neutralized.

23. Process according to the claim 21, characterized in that the filler material straw is cooked and after the resulting disintegration mixed directly, dropping wet with the hot bitumen / caoutchouc compound.

24. Process according to claim 21, characterized in that the straw before disintegration is shredded.

25. Process according to claim 21, characterized in that the straw is cooked under pressure at least untill the natural pentosan- , lignin- , and/or cellulose binding of the straw fibres in the natural straw stalk structure is at least partly disintegrated.

26. Process according to claim 21, characterized in that the temperature during the mixing of the binding agent and the filler material is between 80 ° C and 150 ° C.

27. Process according to claim 21, additionally including further treatment by means of at least one or more of the following process steps:

- 5    - cutting the filler material,
- impregnating the filler material,
- drying the filler material,
- blending the filler material with other ingredients,
- adding of kaolin,
- 10   - adding of clay,
- pressing, casting or rolling the deadening material,
- forming the deadening material into a deadening element or a deadening pad and
- fusing the deadening element respectively the deadening
- 15   pad with a carrier element, especially an automotive sheet metal panel.

28. Usage of shredded or disintegrated straw as part of a deadening material, according to claim 1, for vehicles,

20   especially for automobiles, rail cars, air planes or ships.